

2008 Lower-Emission School Bus Program



School District Workshop

Brief History

- Board Established Program in 2000
- Over \$100 million in State Funding
 - 600 Buses Replaced
 - 3,800 Buses Retrofitted
- Current funding
 - Proposition 1B
 - \$200 million
- Goals
 - Benefit Children's Health
 - Provide Safer Transportation
 - Reduce Toxic Diesel Pollutants
 - Accelerate Replacements and Retrofits before Regulation

Potential Health Benefits from Truck and Bus Regulation can be Significant

- Proposed regulation would reduce health risks and costs
- Local health risk
 - Students exposure to diesel emissions
- Upcoming regulation to the Board 12/08

Proposed School Bus Requirements

- School Buses must meet PM requirements only
- 3 Compliance Options beginning 12/31/2010
 - Option 1: BACT Schedule - Milestones based on engine model year; or
 - Option 2: PM BACT Percentage Limits - 25% of fleet each year; or
 - Option 3: PM Fleet Average
- Exemptions for:
 - Historic school buses
 - Low-use operation
- Reporting requirements except Compliance Option 1



Proposed School Bus Requirements

Option 1 -- School Bus BACT Compliance Schedule

Compliance Deadline As of December 31	Engine Model Year
2010	2000 and newer
2011	1994 - 1999
2012	1987 - 1993
2013	Pre-1987

Note: Exemption delay until 2017 if engine not retrofittable, reporting requirement only.

Proposed School Bus Requirements

Option 2 - School Bus PM BACT Percent Limits

Compliance Deadline As of December 31	Percent of Fleet to be in Compliance
2010	25
2011	50
2012	75
2013	100

Proposed School Bus Requirements

Option 3 - School Bus PM Fleet Average

Compliance Deadline As of December 31	Fleet PM Targets (g/mile)	
	<u>MHD</u>	<u>HHD</u>
2010	0.38	0.710
2011	0.29	0.530
2012	0.17	0.320
2013	0.06	0.110

Lower-Emission School Bus Program



Lower-Emission School Bus Program Implementation

- 3 Implementation Options:
 - Air District Implements own program
 - Air Districts form a regional program
 - **ARB implements program-- ICF International selected as contractor to assist primarily with outreach & applications**

LESBP Implementation Timeline

Release of NOFA	September 8
Workshops	October 14 - 22
Application Deadline	October 31
ICF Application Review	October 31 – November 25
Grant Awards Announced	December 8
Grant Agreement Signature Deadline	January 23
Release of 2 nd NOFA	TBD (If necessary)

LESBP Milestones

Pre-1977s 100% under fully executed contract and buses must be ordered; those without pre-77's 10% of retrofit & 10% of 77-86 bus replacements under fully executed contract*	2/1/09
50% of allocation must be under contract	8/1/09
All Pre-1977s replaced, 100% of 1977-1986's and 50% of retrofits under contract	2/1/10
<i>Retrofit Funds May No Longer Be Available due to proposed regulation</i>	6/30/10
100% allocation under fully executed contracts	8/1/10
All funds must be spent and equipment in operation	6/30/11
*Contracts need to be fully executed by all parties	12/15/08 – 1/15/09

Replacement Program – Buses & Infrastructure

- Eligible Applicants
 - Public School Districts
 - JPAs holding ownership
- Eligible Buses
 - Replace pre-1977s first
 - 1986 Model Year and Older Buses with continuous CHP safety certification (form 292) as of 12/31/05 Currently registered with the DMV
 - > 14,000 lbs. GVWR, equipped with heavy-duty engines
- Only Replacement Buses Eligible, not fleet expansion
- Old Bus Must Be Scrapped

Replacement Bus Requirements

- Fuel neutral, as long as other requirements met
- Required Emission Criteria (Table III-1):
 - 2007/2009 MY --1.44 g NO_x or lower and 0.01 g PM or lower
 - 2010 MY-- 0.2 g NO_x and 0.01 g PM

CNG Fueled School Buses

- An additional 10% can be used for refueling infrastructure when not available or inadequate up to \$14K/bus
- CNG tank replacements NOT an eligible expense under Prop 1B

Replacement Bus Guidance

Lower-Emission School Bus Program will fund:

- Base bus comparable to one being replaced
- Potential upgrades to fulfill bus routes allowed
- Some optional equipment if required for special needs (e.g. lifts)
- No more than \$140K for replacement bus

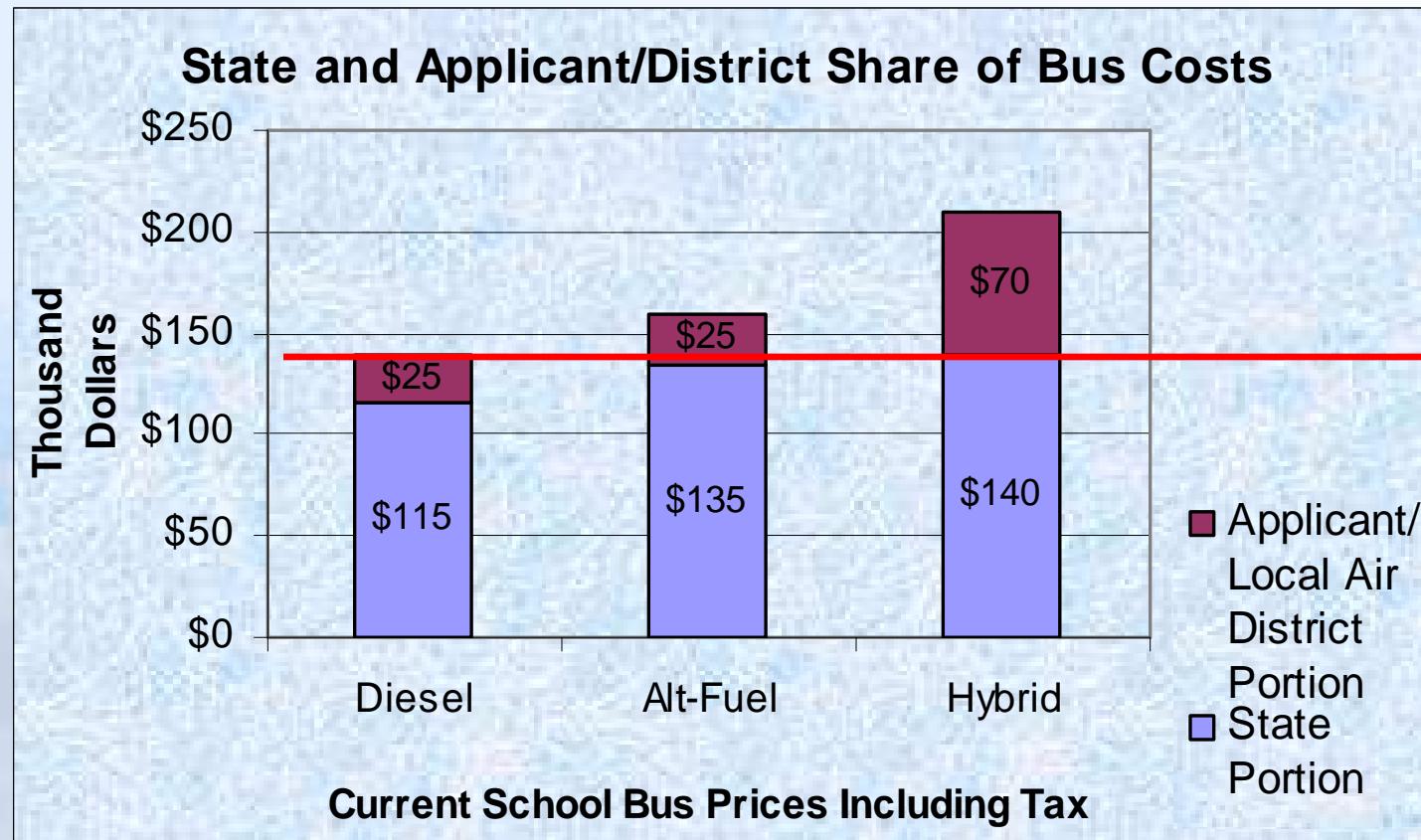
Cost Cap for Replacements

- \$140K (includes tax) cost cap regardless of fuel type
- An additional 10% of Funds Can be Used for Eligible Infrastructure

Match Fund Requirement

- \$0 Match for Pre-1977 MY Replacements
- \$25K Match for 1977-1986 MY Replacements
 - Up to \$15K may be waived for 20% of the buses funded per air district.
 - Air Districts may use local funds such as AB 923 funds for remaining \$10K for the match or the entire \$25K of the match

Current School Bus Prices & Match Funding



**Cost Cap,
\$140K**



•EO Granted Authority to Raise Cost Cap

Replacement Documentation Retention

- Must retain for Contract Term + 2 Years
- Appendix E (Records Retention)
 - Application
 - Resolution
 - Executed Contracts
 - Vendor quotes (applicants also need to retain this)
 - Purchase Order and Invoice(s) for new replacement bus
 - ARB certification Executive Order for the engine
 - Proof of payment
 - CHP form 292 (Inspection Approval Certificate)
 - Registration for replaced bus
 - Registration for new replacement bus
 - Verification of GVWR – photo of bus data tag
 - Documentation of the disposal of the replaced bus

Retrofit Program

- **Retrofits are a vital component to ARB's emission reduction strategies.**
 - **Retrofits provide 85% reduction in PM**
 - **Cost is ~10% that of a new bus**
 - **Reduce children's exposure to toxic PM**
- **ARB's goal is 25% of funding to retrofits in each of the 16 air districts**

Retrofit Cost Cap

- ARB will pay up to \$20,000 for retrofit, data logging, installation, infrastructure, and filter maintenance
- Maintenance Costs up to \$2,500 included in \$20,000. This includes:
 - Data logging (up to \$300/bus)
 - De-ashing
 - Purchase of filter cleaning machine may be more cost effective for over 6 buses
 - Spare Filter allowed (\$3,000) for up to 20 retrofits

Retrofit Program Requirements

- Eligible applicants
 - Public school districts
 - JPAs holding ownership
 - Transportation contractors providing transportation to public schools
- Eligible school buses
 - All 1987 and newer MY in-use diesel-fueled school buses with current CHP certifications & DMV registration
 - Type I & II; no GVWR requirement of over 14,000 lbs but some DPFs may require in the terms & conditions

Eligible Devices

- ARB-verified Level 3 technology \geq 85% PM reduction
- For current list see:
<http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>
 - Specifications in Executive Orders
 - Using Fuel Additives voids retrofit warranties
 - Biodiesel blends – see Appendix I
- Common School Bus Engines Eligible for Retrofit see Table IV-1
- Retrofit Implementation Questions to Kathleen Mead @916-324-9550 or Kmead@arb.ca.gov

CHP Inspection for Retrofit Projects

- Required before school bus is returned to service to protect children from improper bus installations or modifications
 - After inspection, obtain:
 - CHP form 343 (Safety Compliance Report/Terminal Record Update)
- OR**
- CHP form 343-A (Vehicle/Equipment Inspection Report Motor Carrier Safety Operations)

Retrofit Documentation Retention

- Must Retain for Grant Term + 2 Years
- Appendix E (Records Retention)
 - Application
 - Resolution
 - Vendor Quotes (applicants also need to retain this)
 - Executed Contracts
 - Invoice(s)
 - Proof of Payment
 - CHP form 343 or CHP 343A
 - Retrofit device verification Executive Order
 - Maintenance Records
 - Invoice/P.O. stating maintenance date, service performed, and cost

Contact Information

- For Application Assistance contact:
 - ARB staff liaison
 - ICF
 - Hotline # (415) 677-7160 or
 - schoolbusinfo@icfi.com
- Regulation: Earl Landberg, 916 323-1384 or elandber@arb.ca.gov,
- Link to the Statewide Truck and Bus Page:
<http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>